Why Is The Water Treated This Way?

The treatment train outlined above is designed to remove dirt, particulate matter, naturally occurring organic matter (NOM), and microscopic organisms like bacteria that may be in the raw water. Effective filtration is crucial in the removal of microorganisms, including bacteria that are associated with solids such as dirt and debris. Disinfection kills potentially harmful microorganisms. Disinfection of drinking water has saved millions of lives over the century by preventing waterborne diseases such as typhoid and cholera.

Denver Water has used chlorine as a primary disinfectant since 1906. We use it early in the treatment process to allow sufficient contact time with the water for maximum disinfection. We have used chloramine since 1918. It is our secondary disinfectant. Chloramine is a very effective long lasting disinfectant that produces fewer disinfection by-products (DBPs), such as Trihalomethanes (THMs) and Haloacetic Acids (HAAs).

The Environmental Protection Agency (USEPA) establishes the regulations for all water utilities. In Colorado, the state health department (Colorado Department of Public Health and Environment) is the agency that oversees and enforces these regulations for water utilities. These regulations are very strict and require that drinking water is made safe for consumption over a person's lifetime. At present there are over 85 contaminants and groups of contaminants that are regulated in drinking water. Some of these contaminants are clearly a threat, like lead, while others are merely suspected of being health risks, but still considered serious enough to regulate. EPA has set regulatory limits for these compounds. Regulatory limits are levels of safety that must not be exceeded in order to maintain safe drinking water. Some contaminants were regulated based on the possibility of their occurrence in water. Their regulatory limits or levels were determined based on the best available data from health studies. The majority of the EPA's drinking water regulations apply to treatment plant effluent water (the finished water after treatment). We're happy to report that Denver Water has never violated any regulations to date. The compounds and elements that were **not** detected in any of the three treatment plant effluents are listed immediately following the data tables on page 22.